



#49
12/28/95
JA

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of
Bednorz et al.

: Date: September 26, 1995

Serial No.: 08/303,561

: Group Art Unit: 1105

Filed: September 9, 1994

: Examiner: D. McGinty

For: NEW SUPERCONDUCTIVE COMPOUNDS HAVING HIGH TRANSITION
TEMPERATURE, AND METHODS FOR THEIR USE AND PREPARATION

AFFIDAVIT UNDER 37 C.F.R. 1.132

Commissioner of Patents and Trademarks
Washington, D. C. 20231

Sir:

I, David B. Mitzi, being duly sworn, do hereby depose and
state:

That I received a B.S.E. degree in Electrical
Engineering/Engineering Physics (1985) from Princeton University
and a PhD. degree, in Applied Physics (1990) from Stanford
University, California.

That I have worked as a research staff member in Solid State
Chemistry at the Thomas Watson Research Center of the International
Business Machines Corporation in Yorktown Heights, NY from 1990 to
the present.

That I have worked in the fabrication of and characterization of
high temperature superconductor and related materials from 1990 to
the present.

That I have reviewed the above-identified patent application and

YO987-074BY

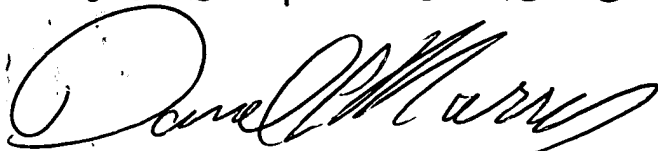
That I have reviewed the above-identified patent application and acknowledge that it represents the work of Bednorz and Müller, which is generally recognized as the first discovery of superconductivity above 26°K and that subsequent developments in this field have been based on this work.

That all the high temperature superconductors which have been developed based on the work of Bednorz and Müller behave in a similar manner, conduct current in a similar manner and have similar magnetic properties.

That once a person of skill in the art knows of a specific transition metal oxide composition which is superconducting above 26°K, such a person of skill in the art, using the techniques described in the above-identified patent application, which includes all known principles of ceramic fabrication, can make the transition metal oxide compositions encompassed by claims 24-26, 86-90 and 96-108, without undue experimentation or without requiring ingenuity beyond that expected of a person of skill in the art. This is why the work of Bednorz and Müller was reproduced so quickly after their discovery and why so much additional work was done in this field within a short period of their discovery.

By: 
David B. Mitzi

Sworn to before me this 26th day of September, 1985



DANIEL P. MORRIS
NOTARY PUBLIC, State of New York
No. 4888676
Qualified in Westchester County
Commission Expires March 16, 1997